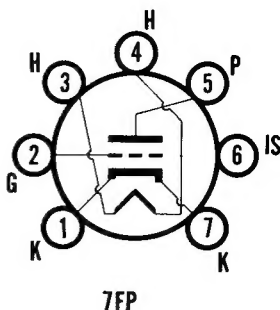




SYLVANIA TYPES 6ES5
3ES5
2ES5

VHF TRIODE



MECHANICAL DATA

Bulb.....	T-5 1/2
Base.....	E8-1, Miniature Button 7-Pin
Outline.....	5-2
Basing.....	7FP
Cathode.....	Coated Unipotential
Mounting Position.....	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

	2ES5	3ES5	6ES5
Heater Voltage.....	2.35	3.0	6.3 Volts
Heater Current.....	600	450	200 Ma
Heater Warm-up Time ¹	11	11	Seconds
Heater-Cathode Voltage			
Heater Negative with Respect to Cathode			
Total D C and Peak.....	200	200	200 Volts
Heater Positive with Respect to Cathode			
D C.....	100	100	100 Volts
Total D C and Peak.....	200	200	200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Shielded)

Grid to Plate.....	0.36 $\mu\mu\text{f}$
Input: g to (h+k+I.S.).....	3.0 $\mu\mu\text{f}$
Output: p to (h+k+I.S.).....	4.0 $\mu\mu\text{f}$

RATINGS (Design Center Values)

Plate Voltage.....	250 Volts Max.
Plate Dissipation.....	2.5 Watts Max.
D C Cathode Current.....	25 Ma Max.
Grid Circuit Resistance.....	0.5 Megohms Max.

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier

Plate Voltage.....	200 Volts
Grid Voltage.....	-1.0 Volts
Plate Current.....	15 Ma
Transconductance.....	9500 μmhos
Amplification Factor.....	70
Plate Resistance (approx.).....	7400 Ohms
E_c for $I_b = 100 \mu\text{a}$ (approx.).....	-9 Volts

NOTE:

1. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80 % of its rated value after applying four (4) times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three (3) times rated heater voltage divided by rated heater current.

APPLICATION

The Sylvania Types 2ES5, 3ES5 and 6ES5 are semi-remote cutoff triodes designed for use as VHF RF amplifiers. Features of the design include: A partial shield between the grid and plate which lowers the capacitance between these two elements and promotes ease of neutralization; low input capacitance; and higher input impedance by virtue of dual cathode leads.